Research to improve food processing

Prof Hii (left) and a postgraduate student using an adsorption drier.

FOOD processing remains one of the most important income-earning sectors in Malaysia.

One of the strategic thrusts that has been set under Third Industrial Master Plan (IMP3) 2006-2020 is to intensify research and development in food processing to make Malaysia an important regional food production and distribution hub.

Total investments in the industry is projected at RM24.6bil for the entire IMP3 period and exports are expected to grow at an average annual rate of 7.8% to reach RM24.2bil by 2020.

Various agencies and universities are involved in food processing research in Malaysia such as Malaysian Agricultural Research and Development Institute, Malaysian Palm Oil Board, Malaysian Cocoa Board, Department of Agriculture, Universiti Putra Malaysia, Universiti Kebangsaan Malaysia, University Malaysia Sabah, Universiti Teknologi Malaysia, The University of Nottingham Malaysia Campus, Universiti Tunku Abdul Rahman and more.

A diverse range of research studies are carried out to improve the cost, safety and quality of food products.

Some examples of recent research carried out in Malaysia include functional food products, novel food processing technologies, advance food preservation, nutritional properties, food safety and halal food products.

Currently, in the Centre for Food & Bio-product Processing (CFBP) at The University of Nottingham Malaysia Campus, various ongoing research is conducted under the following four strategic research themes:

- **Product diversification and innovation**: Innovate and develop new food products to improve their functional and nutritional properties.
- **Novel drying and dehydration techniques**: Development of new drying/dehydration techniques to produce high-quality dried food products.
- **Advance food processing technology**: Development of advanced food processing machineries/techniques to minimise food wastage and improve production efficiency.
- **Bio-processing**: Utilise organisms, tissues, cells or their molecular components from both plant and animal products as a means to produce safe food products.

CFBP has to date attracted research funding of more than RM2mil and has established extensive linkages with local and international universities and industrial collaborators.

Some of its recent research include zeolite adsorption dryer, heat pump dryer, vacuum fryer, dried fruit snacks (salak and chempedak), dried ganoderma and high polyphenols cocoa.

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